

## Claims

- [c1] 1. An arrangement for determination of the maximum allowable velocity ( $V_{\max}$ ) for a vehicle traveling downhill, the arrangement comprising:  
a vehicle comprising a wheel brake system and at least one additional brake function;  
a detector that detects a value of current inclination ( $\alpha$ ) of the vehicle in relation to horizontal; and  
a computing means for determining a value relating to the maximum allowable long-term velocity ( $V_{\max}$ ) of the vehicle in dependence on at least the value of current inclination ( $\alpha$ ) and in consideration of the current braking ability of the at least one additional brake function.
- [c2] 2. The arrangement as recited in claim 1, further comprising:  
the computing means being connected to an indicator device having a capability to indicate a computed value ( $v_{\max}$ ) indicative of a maximum allowable velocity to the driver of the vehicle (1).
- [c3] 3. The arrangement as recited in claim 1, further comprising:  
the computing means being arranged for automatic activation of the at least one additional brake function in dependence of the maximum allowable long-term velocity ( $v_{\max}$ ).
- [c4] 4. The arrangement as recited in claim 1, further comprising:  
the at least one additional brake system comprises a retarder arranged on the vehicle.
- [c5] 5. The arrangement as recited in claim 1, further comprising:  
the at least one additional brake system comprises a motor-brake arranged in the vehicle.
- [c6] 6. The arrangement as recited in claim 1, further comprising:  
the vehicle being arranged to carry a load and having a detector for detection of a measure corresponding to the weight of the load, which measure is used at determination of the maximum velocity of the vehicle ( $v_{\max}$ ).
- [c7] 7. A method for determination of the maximum allowable velocity ( $V_{\max}$ ) for a

vehicle (1) when going downhill, the method comprising:  
providing a vehicle having a wheel brake system and at least one additional  
brake function;  
detecting a current inclination ( $\alpha$ ) of the vehicle in relation to horizontal;  
determining the current braking capability of the at least one additional brake  
function; and  
determining a value ( $V_{\max}$ ) relating to the maximum allowable long-term  
velocity of the vehicle in dependence of at least the value of said inclination  
( $\alpha$ ) and the current braking ability of said at least one additional brake  
function.

[c8] 8. The method as recited in claim 7, further comprising:  
indicating the value ( $v_{\max}$ ) of the maximum allowable long-term velocity of  
the vehicle to a driver of the vehicle.

[c9] 9. The method as recited in claim 7, further comprising:  
activating automatically the at least one additional brake function in  
dependence of the value ( $v_{\max}$ ) of the maximum allowable long-term velocity  
of the vehicle.

[c10] 10. The method as recited in claim 7, further comprising:  
utilizing a detector to detect a measure that indicates the current load of the  
vehicle, and  
determining the value ( $v_{\max}$ ) concerning the value ( $v_{\max}$ ) of the maximum  
allowable long-term velocity of the vehicle in dependence of the indicated  
measure of the load of the vehicle.